REMARKS

In order to ensure full consideration of the foregoing amendments, the arguments contained herein, and the evidence set forth in the attached Declaration of Allen A. Aradi, Applicant is filing concurrently herewith a Request for Continued Examination.

At present, claims 1-8, 12-22 and 26-28 are rejected under 35 U.S.C. §103(a) as being unpatentable over Dorer alone. Claims 1-3, 6-10, 12-17, 20-24 and 26-28 are rejected under 35 U.S.C. §103(a) as being unpatentable over Henderson alone. Finally, claims 11 and 25 are rejected under 35 U.S.C. §103(a) as being unpatentable over Henderson in view of Kaneko. For any one or more of the following reasons, Applicant respectfully submits that the rejections are traversed.

Applicant believes that there is a fundamental misunderstanding of the invention that has led to the rejections made by the Examiner. Once there is a clear understanding of the invention, then the patentability of the present invention will be apparent. Also, Applicant submits that the prior art references cited by the Examiner are not entitled to the broad scope necessary to justify the grounds of rejection. Finally, Applicant submits that the rejections are based on obviousness without any reference to the identity of one of ordinary skill in the art and the basis for why the claimed invention is obvious to that person.

The foregoing amendments to the independent claims 1 and 15 merely clarify that the present invention is useful in engines that have both combustion chamber deposits and flaking. This distinction is discussed in more detail herein.

At the outset, it cannot be emphasized enough that the claimed invention is directed to reducing combustion chamber deposit flaking (claim 1 et al.) and reducing cold start emissions (claim 15 et al.) The claimed invention is not directed to the existence or not of combustion chamber deposits. By definition, there must be combustion chamber deposits to even be possible to have the flaking phenomenon. However, and very importantly, it must be understood that just because an engine has combustion chamber deposits does not mean that it will experience flaking of those deposits. As explained in the Aradi Declaration, it is possible to have relatively little combustion chamber deposit mass but still have a flaking problem. Likewise, it is possible to have a relatively large amount of combustion chamber deposit with only a minor or no flaking problem. The present invention is directed to reducing flaking and improving cold start emissions without regard to the amount of combustion chamber deposits.

The problems of flaking and cold start emissions as a result of flaking have only recently been identified. As explained in the Aradi Declaration, prior to the introduction of advanced emissions control systems, the problem and even the existence of flaking is not reported. Therefore, the extent of historical combustion chamber deposit flaking, if any at all, is unknown. However, since that introduction of modern systems, flaking has become a significant issue that requires a solution. This problem is the genesis for the solution embodied in the present invention.

Applicant submits that there are fundamental gaps in the disclosure and teachings of the cited Dorer and Henderson references that undermine the rejections by the Examiner. Dorer nowhere mentions combustion chamber deposits or the ability,

or lack of ability, to inhibit combustion chamber deposits in an engine by combusting that fuel therein. Dorer nowhere mentions combustion chamber deposit flaking. Henderson mentions only once that it is an object of that invention to improve combustion as indicated without increasing the "tendency to lay down combustion chamber deposits." Column 2, Line 19. There is no further description with respect to combustion chamber deposits. There is no enablement with respect to reducing or controlling combustion chamber deposits. There is no further explanation with respect to combustion chamber deposits. There are no experimental results that relate to combustion chamber deposits. The single, nonenabling mention of combustion chamber deposits is further directed only to those deposits. There is NO disclosure of flaking of combustion chamber deposits. Therefore, contrary to the Examiner's assertions, neither Dorer nor Henderson teach that metal compounds would inhibit the formation of combustion chamber deposits. There is no teaching or other disclosure with respect to the separate and different concept of flaking of those deposits. Therefore, there is no teaching or suggestion of the claimed invention that is able to support the rejection of the Examiner.

Additionally, the Examiner, in response to Applicant's earlier arguments, leapfrogs part of the claimed invention that limits the claims to engines that have advanced emission control systems. The fact is that modern engines with these new emission controls are significantly and substantively different from prior internal combustion engines. Flaking was never recognized (and may have never existed) prior to the introduction of modern engines including advanced emissions controls. While modern engines that incorporate advanced emissions control or direct injection gasoline

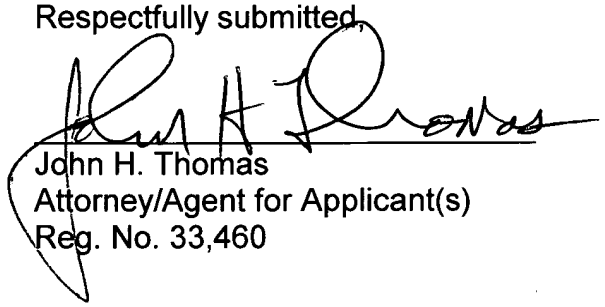
components are generically under the very broad category of internal combustion engines, the modern engines are in a separate category from older technologies in the context of the present invention - - combustion chamber deposit flaking and cold start emissions. As described in the Aradi Declaration, the present invention addresses a new problem that apparently never previously existed. Therefore, the present invention is solving a new problem and not an old problem that was hypothetically solved all along.

Finally, the Examiner has nowhere identified the hypothetical person of ordinary skill in the art. In order to establish obviousness as asserted by the Examiner, it is required that the Examiner define that hypothetical person and only then establish why the invention is obvious to that person. In the Aradi Declaration, it is clearly stated that those of ordinary skill in the art of gasoline formulations is not historically aware of problems of combustion chamber deposit flaking. This person of ordinary skill in the art is only recently aware of the flaking problem and the resulting cold start emissions problems as a result of the use of advanced emissions controls or direct injection gasoline engines. If the person of ordinary skill in the art had been aware of flaking problems prior to modern engines, then it would have been reported. Therefore, Applicant believes that it is not possible to arrive at the present invention without the teachings and the map of the present disclosure.

For any one or more of the foregoing reasons, Applicant submits that the obviousness rejections in view of Dorer and Henderson are traversed.

It is believed that there are no additional fees associated with this filing. However, in the event that this is incorrect, the Commissioner is hereby authorized to charge any deficiencies in fees or credit any overpayment associated with this communication to Deposit Account No. 50-2127.

Respectfully submitted,



Date: November 27, 2006

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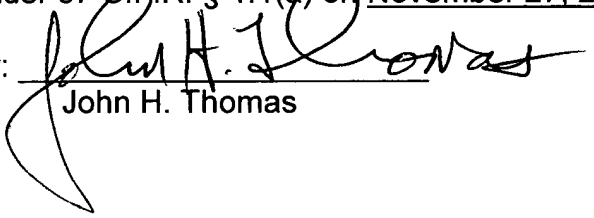
by: 
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